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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/697,890	10/27/2000	Andrew C. Gallagher	81659DMW	6354

7590 12/18/2003

Patent Legal Staff
Eastman Kodak Company
343 State Street
Rochester, NY 14650-2201

EXAMINER

COUSO, YON JUNG

ART UNIT	PAPER NUMBER
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2625

3

DATE MAILED: 12/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/697,890

Applicant(s)

GALLAGHER, ANDREW C.

Examiner

Yon Couso

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-7 and 10-12 is/are rejected.
- 7) ☒ Claim(s) 3,4,8 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 5, 6, 7, 10, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt (US 5,754,536).

As per claims 1 and 6, Schmidt teaches a digital signal processing system for determining the interpolation attributes of a digital signal channel, the system comprising: means for extracting a digital signal from the channel (column 6, lines 39-54); and means for using the extracted digital signal to determine whether the digital signal is an interpolated signal channel or a non-interpolated signal channel (column 10, lines 55-64).

The Schmidt reference is mainly directed to digital speech processing method and apparatus. Even though, there are differences between processing image signal data and speech signal data, there are also similarities. Main difference is that, the speech signal is made of one dimensional data stream, whereas, image data is mainly represented as two dimensional. However, two dimensional image data can also be processed in one dimensional data stream. Interpolation is widely used in both speech and image processing that the technique of checking whether the data stream is interpolated or not can be used, in not only in speech processing but also in image data processing. Schmidt discloses means for using the extracted digital signal to determine whether the digital signal is an interpolated signal channel or a non-interpolated signal

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channel (column 10, lines 55-64). It would have been obvious to one of ordinary skill in the art to adapt the technique taught in Schmidt's teaching into the digital image processing for they share many signal processing technique such as interpolation.

As per claims 2 and 7, determining an estimated factor of interpolation is a mere reverse interpolation. Given the Schmidt reference, which determines whether the digital signal is an interpolated signal channel or a non-interpolated signal channel, at the time the invention was made, it would have been inherent, if not obvious to one of ordinary skill in the art to determine an estimated factor that resulted in the interpolated signal.

As per claims 5 and 10, same arguments with regard to claims 2 and 7 apply because the estimated factor would provide information as to which method of interpolation was used to form the digital image channel.

As per claim 11, Schmidt teaches determining whether the digital image channel is an interpolated digital image channel or a non-interpolated digital image channel (column 10, lines 55-64). Schmidt does not teach details on sending a message to a user based on this finding. Schmidt clearly performs different functions based on this finding. Mere incorporation of sending a message to a user at this point is not deemed patentably significant and lacks any criticality.

As per claim 12, Schmidt teaches means for determining a subsequent image processing channel based on whether the digital image channel is an interpolated digital image channel or a non-interpolated digital image channel (column 10, lines 55-64).

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2. Claims 3, 4, 8 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

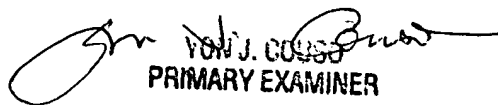
3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Gerson et al, Prakash et al, Kleijn, Williams et al, Gindele et al, and Adachi are also cited.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yon Couso whose telephone number is (703) 305-4779. The examiner can normally be reached on 8:30 am –5:00 pm from Monday to Friday

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta, can be reached on (703) 308-5246. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800.


YON J. COUSO
PRIMARY EXAMINER

YjcDecember 12, 2003